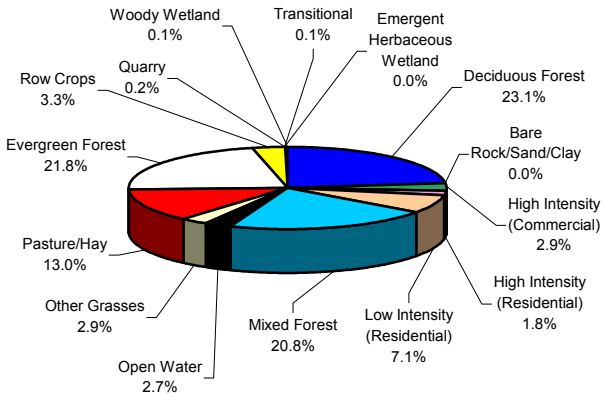
Summary – Ft. Loudoun Lake

In 1996, the Tennessee Department of Environment and Conservation Division of Water Pollution Control adopted a watershed approach to water quality. This approach is based on the idea that many water quality problems, like the accumulation of point and nonpoint pollutants, are best addressed at the watershed level. Focusing on the whole watershed helps reach the best balance among efforts to control point sources of pollution and polluted runoff as well as protect drinking water sources and sensitive natural resources such as wetlands. Tennessee has chosen to use the USGS 8-digit Hydrologic Unit Code (HUC-8) as the organizing unit.

The Watershed Approach recognizes awareness that restoring and maintaining our waters requires crossing traditional barriers (point *vs.* nonpoint sources of pollution) when designing solutions. These solutions increasingly rely on participation by both public and private sectors, where citizens, elected officials, and technical personnel all have opportunities to participate. The Watershed Approach provides the framework for a watershed-based and community-based approach to address water quality problems.

Chapter 1 of the Ft. Loudoun Lake Watershed Water Quality Management Plan discusses the Watershed Approach and emphasizes that the Watershed Approach is not a regulatory program or an EPA mandate; rather it is a decision-making process that reflects a common strategy for information collection and analysis as well as a common understanding of the roles, priorities, and responsibilities of all stakeholders within a watershed. Traditional activities like permitting, planning and monitoring are also coordinated in the Watershed Approach.

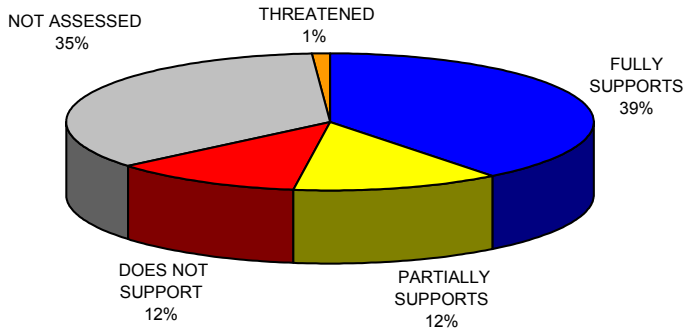
A detailed description of the watershed can be found in Chapter 2. The Tennessee portion of the Ft. Loudoun Lake Watershed is approximately 638 square miles and includes parts of four East Tennessee counties. A part of the Tennessee River drainage basin, the Tennessee portion of the watershed has 911 stream miles and 14,600 lake acres.



Land Use in the Ft. Loudoun Lake Watershed is based on MRLC Satellite Imagery.

One Greenway, four interpretive areas and one wildlife management area are located in the watershed. Ninety rare plant and animal species have been documented in the Tennessee portion of the watershed, including ten rare fish species, seven rare mussel species and six rare snail species.

A review of water quality sampling and assessment is presented in Chapter 3. Using the Watershed Approach to Water Quality, 76 sampling sites were utilized in the Tennessee portion of the Ft. Loudoun Lake Watershed. These were ambient, ecoregion, watershed monitoring sites or special survey sites. Monitoring results support the conclusion that 39% of total stream miles (based on RF3) fully support designated uses.



Water Quality Assessment in the Tennessee portion of the Ft. Loudoun Lake Watershed is Based on the 1998 303(d) List.

Also in Chapter 3, a series of maps illustrate Overall Use Support in the Tennessee portion of the watershed, as well as Use Support for the individual uses of Fish and Aquatic Life Support, Recreation, Irrigation, and Livestock Watering and Wildlife. Another series of maps illustrate streams that are listed for impairment by specific causes (pollutants) such as PCBs, Pathogens, Habitat Alteration and siltation.

Point and Nonpoint Sources are addressed in Chapter 4, which is organized by HUC-10 subwatersheds. Maps illustrating the locations of STORET monitoring sites and USGS stream gauging stations are presented in each subwatershed.

HUC-10 Subwatersheds in the Ft. Loudoun Lake Watershed.

Point source contributions to the Tennessee portion of the Ft. Loudoun Lake Watershed consist of 28 individual NPDES-permitted facilities, 13 of which discharge into streams that have been listed on the 1998 303(d) list. Other point source permits in the watershed are Aquatic Resource Alteration Permits (17), Tennessee Multi-Sector Permits (82) and Mining Permits (6). Agricultural operations include cattle, chicken, hog, and sheep farming. Maps illustrating the locations of NPDES and ARAP permit sites are presented in each subwatershed.

Chapter 5 is entitled *Water Quality Partnerships in the Ft. Loudoun Lake Watershed* and highlights partnerships between agencies and between agencies and landowners that are essential to success. Programs of federal agencies (Natural Resources Conservation Service, Tennessee Valley Authority, U.S. Fish and Wildlife Service, U.S. Geological Survey, National Park Service), and state agencies (TDEC Division of Community Assistance, TDEC Division of Water Supply, Tennessee Department of Agriculture) are summarized. Local initiatives of active watershed organizations (Tennessee Izaak Walton League, Little River Watershed Association) are also described.

Point and Nonpoint source approaches to water quality problems in the Ft. Loudoun Lake Watershed are addressed in Chapter 6. Chapter 6 also includes comments received during public meetings, along with an assessment of needs for the watershed.

The full Ft. Loudoun Lake Watershed Water Quality Management Plan can be found at: http://www.state.tn.us/environment/wpc/watershed/wsmplans/.